## 12.0 SHORT-TERM USE OF THE ENVIRONMENT VERSUS LONG-TERM PRODUCTIVITY AND IRREVERSIBLE AND IRRETRIEVABLE IMPACTS

This chapter documents the relationship between short-term use of the environment and the maintenance and enhancement of long-term productivity as well as the irreversible and irretrievable commitment of resources associated with the proposed action.

## 12.1 Short-Term Use of Resources versus Maintenance and Enhancement of Long-Term Productivity

The four Build Alternatives result in similar impacts to fiscal, social, economic, physical and natural resources in the project area. Potential impacts to fiscal resources include the use of state and federal funds for the materials, labor and right of way acquisition required for construction of a Build Alternative. The cost of constructing a Build Alternative and converting existing residential, commercial and agricultural land use to transportation uses would be recovered through more efficient travel and an increase in tax base due to accessibility to existing and future land uses.

Impacts to social and economic resources (see Chapter 5) such as changes in access and the impacts to humans as a result of right of way acquisition and relocation would be counteracted, similar to the fiscal resource impact, by providing a more efficient transportation facility that would, in the long-term, improve accessibility and mobility in the area.

Chapters 6 and 7 identify the impacts to the natural and physical environment resulting from the Build Alternatives, including impacts to wildlife, wetlands, air quality and noise. The long-term transportation service and efficiency benefits would outweigh short-term adverse impacts to the physical environment (e.g., air quality and noise impacts). Short-term impacts to the natural environment (e.g., wetlands and wildlife) would be mitigated to alleviate long-term consequences.

Although each Build Alternative would result in the short-term use of resources, the short-term use of these resources is consistent with long-term productivity of the area, including present and future transportation needs of the state and region (see Chapter 2 – Purpose and Need); long-term reduction in Vehicle Miles Traveled (VMT) and a reduction in fuel consumption. The transportation improvements are based on regional and state planning documents which have considered the need for existing and future transportation needs within the context of present and future land use development.

## 12.2 Irreversible and Irretrievable Commitment of Resources

Implementation of the proposed project involves the commitment of a range of fiscal, social and economic, and physical and natural resources. Construction of a Build Alternative would require a substantial one-time expenditure of both state and federal funds which are not retrievable. While these public funds are not directly retrievable, the money spent can be considered a long-term investment in the economic vitality of the region.

The amount of land required for each of the four Build Alternatives would vary; however, the overall magnitude of impact would be relatively similar for each Build Alternative. Land used in the construction of the proposed project is considered an irreversible commitment during the time period that the land is used for a highway facility. However, if a greater need arises for use of the land or if the highway facility is no longer needed, the land can be converted to another use. At present, there is no reason to believe such a conversion would ever be necessary or desirable.

Considerable amounts of fossil fuels, labor and highway construction materials such as cement, aggregate and bituminous material would be required for each of the Build Alternatives. Additionally, large amounts of labor and natural resources are used in the fabrication and preparation of construction materials. The use of these materials is generally considered irretrievable. However, these materials are not in short supply and their use would not have an adverse effect upon continued availability of these resources. In addition, some of these materials may have salvage value and may be recycled at the end of the facility's design life.

The commitment of these resources is based on the concept that residents in the immediate area, state and region would benefit by the improved quality of the transportation system. These benefits would consist of improved accessibility, safety, savings in time and greater availability of quality services which are anticipated to outweigh the commitment of these resources.